

What Happens to the Words? Choristers' and Audience Members' Perceptions of Texted Choral Music

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Abstract

The purpose of this investigation was to survey perceptions of choral singers ($N=289$) and audience members ($N=89$) in two natural contexts (actual choral rehearsals, actual concert performances) with respect to their remembered focus immediately after singing or listening to live performances of selected choral compositions, as identified by participants' agreement or disagreement with statements of five identified theories of music-text relationships gleaned from neuropsychological and philosophical studies. This particular investigation, in other words, treated these five theoretical constructs as hypotheses and assessed broadly their potential explanatory capacity by asking these 378 participants, in effect, to what extent their self-reported, remembered focus (music, lyrics, or some configuration thereof) conformed to what various philosophers and neuropsychologists have proposed would be the case.

One of five compositions from available repertoire was sung or heard before each survey administration. Participants selected one construct best descriptive of their remembered focus while the choir was singing. Significant differences ($p<.01$) obtained in (a) distribution of descriptor responses in each administration, (b) comparison of chorister and auditor responses to the same composition, and (c) comparison of response distributions over three administrations with the same ensemble using different compositions. No significant differences were found according to demographic variables of sex, voice part sung, age, musical experience, or prior language study, though some sex-specific trends were noted.

Results indicated that (a) choral music-text relationship was likely composition or genre specific among participants surveyed, (b) descriptors of music-text relationship were generally shared as a whole by choral ensembles surveyed, and (c) choristers and auditors possibly perceived music-text relationships differently. It was noted, however, that in no case did participants appear to ignore either the lyrics or the music altogether. Results were discussed in terms of limitations of the study and avenues for future research, particularly in terms of music-text integration in choral settings, a need for dialogue between philosophers of music and neuropsychologists, and the implications of such dialogue for the philosophy and practice of choral music education.

Introduction

Singing most often involves lyrics. Moreover, as philosopher Peter Kivy (2002) acknowledges, "Most of the music in the world, past and present, is sung music (p. 250)." These two facts pose intriguing theoretical questions for philosophers and psychologists about how music and lyrics may coexist in texted music. Such questions, in turn, tend to raise functional implications for the practice of vocal and choral music pedagogy.

Traditional aesthetic approaches to texted music, for instance, ground themselves largely in a framework of instrumental music, or “music alone.” As such, they view words principally as extramusical phenomena, claiming either (a) that music ultimately overpowers or co-opts text to serve some purely musical function (for example, Langer, 1953); (b) that texted music employs two art forms, music and poetry, and hence is a consociated medium whose evaluation depends upon standards generated separately by each of its two constituent parts (for example, Kivy, 1980, 2002; Levinson, 1986, 1990; Sparshott, 1982); or (c) that texted music is not actually music at all. Perhaps the boldest expression of this latter contention occurs in Eduard Hanslick’s treatise *On the Musically Beautiful* (1891/1986), wherein he asserts, “only instrumental music is music purely and absolutely...the concept ‘music’ does not apply strictly to a piece of music composed to a verbal text (p. 9).”

Since Broca’s (1861) observation of an aphasic patient who spoke only the word “tan,” but could produce intelligible words when singing, psychologists and neuroscientists have been interested in those processes informing the production and perception of music with words. A question central to that interest has been whether singing entails the alignment of two, largely distinct processing systems (music and speech), or whether music and lyrics may be in some ways integrated. Arguably, that basic question has been a common thread in theories about music and text proposed by both neuropsychologists and philosophers.

A theory, according to Kerlinger and Lee (2000), is “a set of interrelated concepts and propositions that presents a systematic view of a phenomenon or situation by specifying relationships among variables with the purpose of explaining or predicting the phenomenon or situation (p. 11).” Methodologies employed by psychologists and philosophers may differ, but theories play a prominent role by informing agendas of research and inquiry in both disciplines. Theories, including those about music with text, are continually subject to falsification or verification through ongoing data collection and analyses (Liao, 1999). As such, they assist both in understanding phenomena and in reflecting critically upon those understandings in order to see if and how they ought to be modified.

Studies in both philosophy and psychology, using methodologies particular to each discipline, have offered data contributing to various theories about music with text. To date, however, there has been little dialogue between philosophers and cognitive scientists with specific respect to texted music. Lakoff and Johnson (1999) suggest that philosophy, on the one hand, “cannot simply spin out theories...without seriously encountering and understanding...relevant ongoing scientific research (p. 552),” while cognitive science, on the other hand, requires philosophical sophistication to keep it honest and gain awareness “of how hidden a priori philosophical assumptions can determine...scientific results (p. 552).”

The present investigation seeks broadly to explore participant perceptions in specific contexts in light of various theoretical constructs about texted music. To that end, the following review of the literature relevant to that purpose incorporates both philosophical inquiry and research in the cognitive sciences.

Related Research Literature

Philosophical inquiry

Philosophical theories of texted music may be sorted generally into five major categories or contentions: (1) the primacy of music, (2) simultaneous primacy of music and text on parallel

planes, (3) text primacy, (4) oscillation between text and music, and (5) fusion of music and text into a new entity.

Burrows (1989, 1990), Langer (1953), and Meyer (1956), among others, have been modern advocates of musical primacy. This approach achieved full force with the rise of instrumental music and philosophic aesthetics in the latter eighteenth century, and received particular impetus in the nineteenth century from the philosopher Schopenhauer (1958), who held text as subordinate to a quintessential or transcendent language of music.

From this perspective, the words in texted music largely have been treated as extra-musical referents, which are either transcended or transformed by the intrinsic artistic form of a musical work. As Reimer (1989) remarked,

The artistic meaning and value is always essentially above and beyond whatever referents happen to exist in a work (if they happen to exist at all, as they do not in most instrumental music, abstract paintings and dances, and so on) (p. 27).

Simultaneous primacy of music and text on parallel planes has been suggested in various formulations by Kivy (1980, 2002), Levinson (1986, 1990), and Sparshott (1982). This approach conceived texted music as a consociated or hybrid phenomenon consisting of both music and words. According to this schema, each constituent maintained its distinctive properties and values. Yet each could assist in interpreting the other.

The philosophy of Plato (1968, *Republic*, Books 3 & 10) has been influential for those who have theorized the primacy of text. Plato argued that music represented the human speaking voice. Even in non-texted music, he contended, the ebb and flow of human speech were represented in musical tones. As such, musical elements such as melody and rhythm were thought to be consistently subservient to text, regardless of whether text was manifest or implied. This emphasis was rearticulated in the sixteenth century by the Council of Trent (1554-1563), which endeavoured to correct perceived excesses in polyphonic music sung in Roman Catholic churches, and also by the Florentine Camerata, whose efforts to recover ancient sung drama emphasized music as declaimed text (Strunk, 1950).

Frye (1957) proposed oscillation between primacy of text and primacy of music as a hermeneutic for texted music. Adherents to such a perspective have supposed that one of the two media must dominate the other, but that text could dominate music, as well as music absorbing text.

Fusion of text and music into a new entity has been theorized by Ridley (2004) and Steiner (1975). Ridley (2004), for instance, suggested, "text and music particularize one another (p. 99)" to the extent that "the music of a song cannot be fully specified without reference to its text, and so cannot be understood or assessed in isolation from it (p. 86)." In this schema, unlike those theories that approached texted music as a hybrid art form, both music and text become something different when joined together.

Cognitive science research

Various investigations by psychologists and neurobiologists have explored both the perception and production of texted music. On the whole, such studies have contributed data that tend either to reinforce or question one or more of the philosophical theories described above.

Serafine, Crowder, and Repp (1984) studied the relationship between text and melody in memory by testing three possible processing strategies: (a) tune and text stored independently, (b) facilitative integration whereby remembering the tune aids memory of the words or vice versa, and (c) total integration, in which text and melody are remembered as a non-decomposable whole. They concluded that text and tune were largely integrated in memory.

In a subsequent study, Serafine, Davidson, Crowder, and Repp (1986) investigated possible causes of this integration effect. With one experiment they ruled out the possibility of integration due to semantic connotations imposed on the melody by words. Other experiments negated the possibility that earlier results were caused by a decrement in recognition when a previously heard component was tested in an unfamiliar context. Such conclusions further supported an integrated memory representation for melody and text in songs. Crowder, Serafine, and Repp (1990) suggested such integration stemmed from the temporal contiguity in memory for the words and melodies of songs.

Halpern (1984), in a study of college students' organization in memory for familiar songs, found that text and tune were typically integrated in adult memory. But she concluded words were more salient than melody.

Morrongiello and Roes (1990) investigated how young children encoded a song in memory. They sought to ascertain particularly whether text and tune were integrated or stored independently in this population. Preschool children showed a significantly lesser degree of integration than adults. Moreover, while text and tune were integrated somewhat in younger children, the words were more salient than the tune in their memory for a song.

Studies by Besson, Faita, Peretz, Bonnel, and Requin (1998) and Bonnel, Faita, Peretz, and Besson (2001), however, suggested that listeners processed lyrics and melody independently. Participants in these investigations were professional musicians listening to opera excerpts, whereas participants in previous studies (Halpern, 1984; Serafine *et al.*, 1984, 1986) had been undergraduate university students with varied musical backgrounds listening to largely folk and popular songs.

Racette and Peretz (2007), in two experiments where participants learned an unfamiliar song in three conditions (sung-sung, sung-spoken, spoken-spoken), found that singers also processed melody and lyrics independently, rather than as an integrated unit in the initial learning of songs. Singing, moreover, had no significant effect among participants on the ability to recall verbal text. Ginsborg (2002) observed that when classical singers spontaneously learned an opera song, they practiced words and music separately before practicing them together. Such was the case regardless of whether the vocalist was a novice or an expert classical singer.

Stratton and Zalanowski (1994) examined the contributions of music alone, lyrics alone, and music plus lyrics to the affective mood of college students. They found that music with lyrics had greater impact on mood change than either music alone or lyrics alone.

Ali and Peynircioglu (2006) examined effects of melodies with and without lyrics on emotional responses of participants. They found that music alone played a greater role in eliciting the four emotions examined than lyrics. Specifically, lyrics appeared to detract from positive emotions (happy, calm) elicited by melodies, but enhanced negative emotions (sad, angry) conveyed by melodies.

Other studies have investigated through brain imaging the neural processes of aural perceptions of singing. Some of these investigations (Scott *et al.*, 2000; Zatorre, 2001; Zatorre & Belin, 2001; Zatorre, 2002; Riecker *et al.*, 2000) have supported a relative specialization for the processing of fine temporal information, such as intelligible speech data, in the left hemisphere of the brain, and the processing of fine spectral information, such as music or tune data, in the

right hemisphere of the brain. Other brain imaging investigations (Bey & Zatorre, 2003; Griffiths *et al.*, 1998; Griffiths, 2003; Patterson *et al.*, 2002; Schmithorst & Holland, 2003), however, have indicated some bilateral processing of melodic data.

Various case studies have been conducted of right-handed individuals with brain damage, which resulted in severe deficits either in their ability to speak (aphasia) or to function musically (amusia). Individuals with aphasia due to damage to the left inferior frontal lobe of the brain, for instance, have demonstrated ability to sing words even when they could not speak them (Assal *et al.*, 1977; Broca, 1861; Hebert *et al.*, 2003; Jacome, 1984; Smith, 1966; Yamadori *et al.*, 1977). Individuals with amusia due to damage to the right frontal hemisphere of the brain have shown little speech deficit, although their ability in the musical domain, including singing, was severely compromised (Peretz *et al.*, 1997). Moreover, Ayotte, Peretz, and Hyde (2002) found that congenital amusia was associated with deficits both in music recognition and singing. Such studies have supported the hypothesis that speech and music (including sung speech) were primarily lateralized brain functions.

Samson and Zatorre (1991) assessed song recognition in patients who have undergone a unilateral lobectomy. Findings indicated that text recognition was impaired following a left lobectomy, but also that tune recognition appeared to be dependent on the particular text with which it was originally paired. On the basis of such findings, the investigators proposed the potential presence of a dual code for songs in memory, one code for integrated melody and lyrics and one code for storage of song text only.

Steinke, Cuddy, and Jakobson (2001) examined a patient with amusia. Results suggested that recognition of familiar song melodies presented without lyrics was preserved in this person, but recognition of previously familiar instrumental music was lost, perhaps indicating some type of dual storage, in this case one type of storage that integrated melody and lyrics and another type that represented music alone.

Epstein *et al.*, (1999) applied transcranial magnetic stimulation to the right frontal brain hemispheres of ten participants while they were singing. Such procedure abolished melody in only two of the ten participants (20%). Other studies (Henschen, 1925; Hebert *et al.*, 2003) have found that in some aphasic persons both singing and speech were impaired, while other musical abilities were not apparently affected. Such findings suggested that verbal production, whether sung or spoken, was mediated by the same brain mechanisms, which appeared distinct from those mechanisms governing melody.

In this vein, Hickok, Buschsbaum, Humphries, and Muftuler (2003) investigated neural processes related to both aural perception and covert production for speech and music. Several brain regions were found to be involved for both speech and music listening and production. The investigators conjectured that the left Spt region, specifically, provided an auditory-motor interface for both speech and music stimuli.

Callan, Tsytsarev, Hanakawa, Callan, Katsuhara, Fukuyama, and Turner (2006) employed functional brain imaging (fMRI) to examine brain regions involved with the perception and covert production of singing relative to speech in 16 right-handed native Japanese speakers with no professional music education or training. Using a block design, participants were presented with repeating random sequences of five experimental conditions (listening to singing, listening to speech, covert singing, covert speech, and rest). Results indicated that overlapping brain regions were activated for both perception and covert production of singing and speech, suggesting that some fundamental aspects of texted music were essentially identical to those of language. Such findings tended to corroborate those of Hickok *et al.*, (2003) with respect to left hemisphere activity for both singing and speech.

Peretz, Gagon, Herbert, and Macoir (2004) demonstrated in the case of one patient that aphasia affected both speaking and singing in a similar fashion. Such findings, suggested these investigators, lent support to the theory that “sung text is governed by the language processing system that mediates normal speech (p. 11).” Both sung and spoken text, in other words, appeared governed by pathways autonomous from those employed for processing music without words.

Perry, Zatorre, Petrides, Alivisatos, Meyer, and Evans (1999) measured cerebral blood flow (CBL) by means of positron emission tomography (PET) procedures in $N=13$ participants under two conditions: (a) rudimentary singing of a single-pitched vowel and (b) listening. Data were analyzed statistically with a Singing minus Perception construct. Such analysis was used to isolate CBL during rudimentary singing as contrasted to CBL during passive auditory perception.

Overall, results from the Perry *et al.*, study suggested that rudimentary singing on a single vowel and pitch activated substantially similar cortical regions reported previously for speech, but with some degree of potentially opposite hemisphere asymmetries in both motor and auditory regions. The authors thus found “a complex distributed network for the production of singing (p. 3984).” Jeffries *et al.*, (2003) also employed PET procedures to compare brain activity while participants spoke or sang the words to a familiar song. Results suggested production of words in song was associated with right hemispheric activations that were not mirror-image homologues of left hemisphere language areas. Investigators concluded that multiple neural networks may be involved in different aspects of singing.

In another study using PET procedures, Brown, Martinez, and Parsons (2006) compared parallel generational tasks for music and language among amateur musicians ($N=10$), who vocally improvised melodic or linguistic phrases in response to unfamiliar melodies or phrases. Results indicated nearly identical activations in functional brain areas for both improvised music and improvised speech, differences between melodic and sentential generation indicated by some lateralization tendencies, and many bilateral activations for both singing and speech tasks. Informed by these findings and those of other investigators, the authors offered a comparative model of shared, parallel, and distinctive features of neural systems supporting music and language.

Ozdemir, Norton, and Gottfried (2006) used a modified fMRI technique to examine shared and distinct neural substrates of overt singing and speaking using the same bisyllabic words or phrases for both conditions. Results showed a bihemispheric network for vocal production regardless of whether syllables were sung or spoken, thus challenging classical views of distinct cerebral processes for music and language.

All studies cited above entailed, in various ways, solo singing. Variables potentially introduced by choral singing, which entails production and perception of synchronized music and lyrics, have been comparatively less researched to date. One study employed texted music sung in the context of a duet. In a series of three experiments, Racette, Bard, and Peretz (2006) examined sung and spoken utterances in eight persons with aphasia by presenting them with familiar and unfamiliar songs to sing, both on their own and in synchrony with a recorded non-aphasic singer. Results indicated participants did not pronounce words better when singing alone than speaking, and they did not produce more words in singing solo than in speaking. In other words, solo singing did not improve speech articulation or recall of words. However, singing along in synchrony with an auditory model significantly improved participants’ ability to recall and articulate words of novel songs. The investigators theorized that singing along with another may have activated more than one auditory-vocal interface and/or be related to

the operation of mirror neurons. In any event, with these particular participants, choral singing (or at least duet singing) appeared to be an effective therapy for speech disorders, while solo singing was not effective in this context.

Saito, Ishii, Yagi, Tatsumi, and Mizusawa (2006) used fMRI to examine neural correlates of two contrasting modes of singing (singing alone and singing in synchrony) compared with those of speaking. They found differing brain area activations for self-generation of text without auditory input for singing and speaking alone than for either singing along or speaking in chorus when auditory input was present. Such results appeared to indicate that text and melody were not processed symmetrically or parallel in singing a well-learned song.

Satoh, Katshixo, Nagata, Hatazawa, and Kuzuhara (2001) assessed nine male undergraduate music students with PET procedures while participants listened to chorally sung a cappella motes in two conditions: attending to the motet as a whole (harmony-listening condition) and attending to the alto part (alto-part-listening condition). Results indicated bilateral brain activations and thus no apparent lateralization between right and left hemispheres, in both conditions. More complex cognitive processing was noted, however, in the alto-part-listening condition compared with the harmony-listening condition.

Purpose of the Study and Research Questions

The purpose of the present investigation was to survey perceptions of choral singers ($N=289$) and audience members ($N=89$) in two natural contexts (actual choral rehearsals, actual concert performances) with respect to their remembered focus immediately after singing or listening to live performances of selected choral compositions, as gauged by their agreement or disagreement with statements of five identified theories of music-text relationships. This particular study, in other words, treated these five theoretical constructs as hypotheses and assessed broadly their potential explanatory capacity by asking these 378 participants, in effect, to what extent their self-reported, remembered focus (music, text, or some configuration thereof) conformed to what various philosophers and psychologists had proposed might be the case.

To that end, the following research questions were designed for this study:

1. Do distribution responses of participants in each survey administration indicate significant differences in reported focus according to the five identified theories of possible music-text relationships?
2. Do participant responses vary significantly according to age, sex, voice part sung, musical background, and prior language study?

Limitations of this Investigation

Such exploration has several limitations. Assessed perceptions are confined primarily to five preidentified constructs. Data cannot be extrapolated to any singers or auditors beyond those participating in this study. These data, moreover, are dependent upon self-reported, global perceptions of participant focus immediately following, rather than during, performances of specific pieces of choral literature.

Given scarce research to date on perceptions of music-text relationships in live choral or group singing, however, this approach does confer some advantages. First, the five theoretical constructs include broadly among them most permutations of possible music-text relationships

suggested by the scientific literature to date. Secondly, the survey approach pursued here interrupts as little as possible the natural flow of real-life choral rehearsals and concerts. Participants, conceivably, could be placed in MRI machines, wear electrodes, undergo PET procedures, or manipulate a Continual Response Digital Interface (CRDI)-type device while singing or listening. Yet, such approaches, aside from practical considerations of implementation in actual rehearsal or performance contexts, could present potentially confounding variables associated with possibly intrusive characteristics of such dependent measures. Thirdly, this study employs live, as opposed to recorded, choral singing. Apart from the production and perception of synchronized singing, live choral rehearsals and performances also include typically such variables as eye contact, facial affect, and sociological considerations. From a strictly reductionist standpoint, such matters may conceivably be viewed as confounding variables. Nonetheless, even in recorded choral music the choristers themselves experienced such behaviours in making the recording; that is, such variables are inevitably a part, to some degree, of what choral singing is.

Finally, the approach adopted by this investigation affords participants opportunity to sing or hear particular compositions in their entirety. Such a sense of the whole figures prominently in various aesthetic philosophies about the nature of music and composed musical “works,” yet is comparatively lacking in those scientific studies to date that employ shorter tunes and melodies or portions thereof. While future studies may wish to focus on particular moments during singing or listening to choral compositions, the primary purpose of this investigation was to assess the explanatory power of selected theoretical constructs that claim to describe or predict what happens to the words in texted choral music in an overall or general way.

Method and Procedures

Participants

Participants in this study ($N=378$) were 289 choral singers, in three different ensembles, and 89 members of audiences at two choral concerts. Of the choristers, 50 were members of a non-auditioned, undergraduate university women’s chorus. Another 133 choristers comprised a statewide honours choir of high school seniors selected by competitive audition. The third group of singers consisted of 106 secondary school and university choral teacher-conductors attending a choral reading session as part of a music educators’ state convention.

Audience members were drawn from those in attendance at public concerts of the women’s chorus and the honours choir. Each sample represented approximately 10% of those in attendance at each concert. While chosen haphazardly, each convenience sample of audience members included males and females of varying ages. In addition, the honours choir audience sample consisted of equal numbers of choral music teachers and non-teachers.

Survey instrument

A survey card was employed to elicit responses. The first side of the survey card was identical for both choristers and auditors. It asked participants, with regard to a choral composition just sung or heard, to read a list of six possible responses and then check the one response that came closest to their actual remembered focus most of the time the choir was singing that composition.

The six response choices were (a) I focused more on the music, (b) I focused equally on the music and the words at the same time, (c) I focused more on the words, (d) I focused equally back and forth between words and music, (e) I focused more on the overall meaning of the piece, rather than on words or music as distinct entities, and (f) Other (Please describe).

Exact wording of the survey card was crafted in consultation with $N=12$ university students. This group was equally divided between (a) graduate ($n=6$) and undergraduate ($n=6$) students, (b) those majoring in music ($n=6$) and those with no musical ensemble experience or courses in music since elementary school ($n=6$), and (c) males ($n=6$) and females ($n=6$). Each member of this group first read selected passages from the philosophical and psychological literature representative of the five conceptual constructs. They were then asked individually to summarize or paraphrase in a succinct, intelligible way the gist of each passage. Finally, the group as a whole considered each summary and reached consensus on the wording of the survey.

The survey was piloted with a small ($N=18$) university SATB chamber choir. Choir members completed the survey on two occasions, approximately a week apart, immediately after singing in its entirety the same choral composition. Reliability of response distributions (agreements versus disagreements, and so forth) was .92. This choir was not part of the subsequent study.

Procedures

Choristers participating in this study were not informed that a survey would be distributed following their singing. Each conductor had the ensemble sing the composition through in its entirety without stopping. Immediately upon completion of the piece, survey cards were distributed. Directions appearing on the card were also verbalized as written by the researcher. No more than 60 seconds elapsed from the conclusion of singing to marking of a response choice on side one of the survey card.

After marking side one, singers were instructed to turn to side two of the card and complete the short demographic questions listed. Demographic variables for singers included age, sex, voice part sung during the particular composition, whether or not the participant played piano or another musical instrument well, whether or not they took Honours or Advanced Placement English, and which foreign languages they had studied for two or more years.

The three administrations of the survey to the women's chorus were done in the latter part of the semester, with an interval of 10 days between the first two administrations, and a two-week interval between the second and third administrations. Choristers were surveyed on the composition to which an audience sample would also respond during the final rehearsal prior to the concert. The survey was neither explained nor discussed during the time of these administrations. Approximately 24 hours prior to their concert, honours choir participants were surveyed on the piece to which an audience sample would also respond.

For audience participants, survey cards were placed in sealed envelopes and distributed as the audience assembled for the concert. Directions printed on the outside of the envelope asked that participants open the envelope as soon as the chorus had finished singing a particular composition on the concert program and take a moment to mark one response on side one of the enclosed card. No clue regarding the nature of the survey was indicated on the envelope. Participants were requested not to open the envelope until after the ensemble had performed the composition specified.

Audience members then completed side one of the survey card (choosing among six responses) before turning to side two (demographic information). Stimulus compositions were

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performed either right before intermission (women's chorus concert) or as the final concert selection (honours choir concert), allowing audience participants time to complete the survey without disrupting the flow of the performances.

Demographic variables for audience members included sex, whether or not the participant was currently a regular member of some choral group, whether or not the participant used to sing regularly in some choral ensemble, whether or not the participant played piano or another musical instrument well, and age of the participant. Directions for turning in the completed survey card were printed on both the envelope and at the bottom of side two on the card.

Choral compositions

Choral compositions used for survey purposes were selected for variety of possible perceived music-text relationships. Choice, obviously, was limited to current repertoire of the participating ensembles.

The three compositions to which the women's chorus responded were (a) "Blessing," for SSA Chorus, piano accompaniment, by Katie Moran Bart (Curtis Music Press C8425), a setting of the Irish poem "May the road rise up to meet you...;" (b) "My Heart's Friend," from "Songs of the Lights," Set II, for SA Chorus, piano accompaniment, by Imant Raminsh (Boosey & Hawkes OCTB6576), a setting of an interpretation of a Shoshone love song by American novelist, Mary Austin; and (c) "How Excellent Thy Name," for SSAA Chorus, by Howard Hanson (Carl Fischer CM 6706), a setting of verses from Psalm 8. Instead of the piano accompaniment in this voicing, the pipe organ accompaniment from the SATB version of this composition (Carl Fischer CM 6806) was used in performance.

The honours choir responded to "Keep Your Lamps," for SATB Chorus, a cappella, a spiritual arranged by Andre Thomas (Hinshaw HMC-531). Conga drums accompanied the concert performance of this piece, but choristers were surveyed prior to any rehearsal with drums. The arranger of the piece was also conductor of the Honours Choir. He worked with the choir on this arrangement for approximately 25 minutes prior to the ensemble's singing the piece in its entirety and participating in the survey. The sociological context of the song, along with the nature and role of singing in United States slave culture, were emphasized during that rehearsal.

Teachers at the choral reading session responded to the survey after sight-singing "Marianne," for SATB Divisi Chorus, a cappella, from the "North Country Folk Songs" arranged by Philip Wilby (Banks Music ECS 114) with a text about a mariner leaving his true love behind in port. Within the context of repertoire available for this study, the compositions used represented some variety of texts, voicings, and musical styles, though all were from twentieth century composers or arrangers. All compositions were in English, the native language of all participants.

Results

As data were at the nominal level, Chi Square testing was employed. A pre-determined alpha level of .01 was used to assess significance. Results are presented according to the research questions posed.

Research question one

The first research question asked if there would be significant differences in reported focus of participants as assessed by agreement or disagreement with the five identified theories of possible music-text relationships. Distribution of participant response indicated significant preference for one among the five approaches as a descriptor of focus in each of the compositions sung. See Table 1. Response distribution, however, appeared to vary according to the composition sung or heard.

Theories							
	#1	#2	#3	#4	#5	Other	Total
<u>Women's Choir</u>							
<i>Blessing</i>							
Responses	5	20	3	8	8	3	47
Percentage	10.64	42.56	6.38	17.02	17.02	6.38	100.00
	$\chi^2 (5, N=47)=25.89, p<.01$						
<i>My Heart's</i>							
Responses	25	7	0	13	5	0	50
Percentage	50.00	14.00	0.00	26.00	10.00	0.00	100.00
	$\chi^2 (5, N=50)=19.44, p<.01$						
<i>How Excellent</i>							
Responses	8	18	6	11	2	0	45
Percentage	17.78	40.00	13.33	24.44	4.44	0.00	99.99
	$\chi^2 (4, N=45)=16.00, p<.01$						
<u>Women's Choir Audience</u>							
<i>How Excellent</i>							
Responses	13	4	1	13	3	1	35
Percentage	37.14	11.43	2.86	37.14	8.57	2.86	100.00
	$\chi^2 (5, N=35)=27.57, p<.01$						
<u>Honours Choir</u>							
<i>Keep Your Lamps</i>							
Responses	13	25	2	13	61	19	133
Percentage	9.77	18.80	1.50	9.77	45.87	14.29	100.00
	$\chi^2 (5, N=133)=94.77, p<.01$						
<u>Overall Honours Choir Audience</u>							
<i>Keep Your Lamps</i>							
Responses	10	19	1	16	7	1	54
Percentage	18.51	35.19	1.85	29.63	12.96	1.85	99.99
	$\chi^2 (5, N=54)=31.33, p<.01$						
<u>Teacher Audience</u>							
<i>Keep Your Lamps</i>							
Responses	4	8	1	10	3	1	27
Percentage	14.82	29.63	3.70	37.04	11.11	3.70	99.99
	$\chi^2 (5, N=27)=15.44, p<.01$						

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Non-teacher Audience

Keep Your Lamps

Responses	6	11	0	6	4	0	27
Percentage	22.22	40.74	0.00	22.22	14.82	0.00	100.00
	$\chi^2(5, N=27)=19.44, p<.01$						

Choral Teacher Choir

Marianne

Responses	43	27	3	29	2	2	106
Percentage	40.58	25.48	2.83	27.37	1.87	1.87	100.00
	$\chi^2(5, N=106)=88.49, p<.01$						

Table 1. Distribution of Participant Responses to Five Theories about Texted Music

Note: *Theory 1*=I focused more on the music; *Theory 2*=I focused equally on the music and the words at the same time; *Theory 3*=I focused more on the words; *Theory 4*=I focused equally back and forth between words and music; *Theory 5*=I focused more on the overall meaning of the piece, rather than on words or music as distinct entities.

Women's choir compositions

Analysis of the chorister responses overall to three compositions using the first section of Table 1 as a 3 x 6 contingency table indicated significant differences between the distribution of responses among the three compositions sung, $\chi^2(2, N=41)=41.22, p<.01$. The degree of difference was $C=.47$ (upper limit .91), suggesting a moderately strong dependence of the distribution of theory descriptors on the composition variable.

Audience preference was divided among the audience sample hearing the women's chorus perform "How Excellent Thy Name," with 37.14% of respondents selecting theory one (music) and 37.14% of respondents choosing theory four (equal focus back and forth between words and music). Comparison of audience response to chorister response did not indicate a significant difference at the pre-determined .01 alpha level, $\chi^2(5, N=28)=14.01, p=.016$, though results were significant at an .02 level.

Honour's choir composition

Honour's choir responses after singing "Keep Your Lamps" revealed 45.87% of these high school seniors selected theory five (focus more on the overall meaning of the piece). Analysis of response descriptions given under the survey choice "Other" revealed the likelihood of even more of these choristers selecting theory five had there not been a semantic squabble with phrasing of the first portion of this theory on the survey card. Of the 19 "Other" responses, 13 (68.42%) participants wrote that they focused in some fashion more on overall meaning, but also focused to some extent upon words and/or music as well.

Audience results, both overall and sorted according to choral teacher and non-teacher samples, revealed significant differences between the five identified approaches to music-text relationship as selected by participant response. While the overall audience sample (35.19%) and non-teacher participants (40.74%) chose theory two (focus equally on music and words at the same time), choral teachers in the audience expressed strongest preference (37.04%) for theory four (focus equally back and forth between words and music). There was not, however, a

significant difference between this preference and the response (29.63%) of choral teachers to theory two.

Comparison of overall audience and chorister results using a 2 x 6 contingency table revealed a significant difference between auditors and choristers with regard to selected approaches, $\chi^2(5, N=187)=33.55, p<.01$. The degree of difference was $C=.39$ (upper limit .91), suggesting a moderate to somewhat weak dependence of the distribution of theory descriptors on the group variable. Significant differences were found as well when comparing chorister to choral teacher audience respondents, $\chi^2(5)=27.81, p<.01, C=.38$, and to non-teacher audience participants, $\chi^2(5)=20.23, p<.01, C=.29$. These analyses suggested the overall meaning of "Keep Your Lamps," which was so strongly the reported focus of the choristers, was not perceived by its audience as the major descriptor for this composition.

Teacher Choir Composition

Survey results following the singing of "Marianne" indicated 40.58% of choral music teacher-conductors at this reading session selected theory one (music). "Marianne" was the only piece in this study without any instrumental accompaniment.

Research question two

The second research question asked if there would be significant differences among respondents, both choristers and audience members, to the five constructs according to age, sex, voice part sung, musical background, and prior language study. No significant differences in responses were found when data were disaggregated according to these demographic variables. Some trends, however, were observed according to participant sex or voice part sung.

Among Women's Choir audience respondents, 53.33% of audience males selected theory one (music), it was selected by 25% of audience females. While 50% of audience females selected theory four (equally back and forth between words and music), it was selected by 20% of audience males. Among Honour's Choir audience respondents overall, 25% of audience males selected theory two (equally on words and music at the same time) compared to 41.67% of audience females. While 25% of audience females selected theory four (equally back and forth between words and music), it was selected by 43.75% of audience males.

Among Teacher Choir singers, a majority of sopranos (50%) and basses (57.14%) selected theory one (music), while altos and tenors (34.88% and 37.50%, respectively) expressed most preference for theory four (equally back and forth between words and music). The same percentage of tenors (37.50%) also selected theory two (equally on the music and words at the same time).

Discussion

The primary findings of this investigation of the explanatory power of five theoretical constructs about texted music, as assessed through participants self-reported focus while singing or listening to choral music in rehearsal or performance contexts, are that significant differences obtain (a) in response distributions for each composition, (b) in comparisons of chorister and auditor responses to the same composition, and (c) in comparison of responses

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with the same ensemble using three different compositions. That is, none of the five theories *per se* appears consistently most descriptive of overall self-reported participant focus while singing or listening to the compositions used in this study. Demographic variables, moreover, with the possible exception of trends noted with audience member sex and voice part sung by members of the teacher choir, appear to play little role in participant responses.

While results are limited to participants and design of this study, each of these findings has implications for future research. First, data from this study indicate that perceptions of texted music may be composition or performance specific. Second, choristers and auditors may perceive sung music differently. Third, primary focus on text alone never receives prominent attention by participants. Fourth, some perceived relationship between text and music clearly appears operative among participants in this particular study.

These primary findings suggest that (a) perceived music-text relationships may be composition or performance specific among the participants in this study, (b) descriptors of music-text relationship generally tend to be shared as a whole by choral ensembles surveyed, and (c) choristers and auditors may possibly perceive music-text relationships differently. Each of these suggestions has implications for choral music pedagogy and for future research.

Data from comparison of the three sets of responses by the women's chorus tend to suggest that stylistic characteristics of specific compositions (or, perhaps, performances of them) may play a role in perceived music-text relationships. Moreover, participating choristers, across all administrations of the survey, consistently choose by a similar ratio (approximately 2:1 over its nearest contender) one theory from the others as more frequently descriptive of focus. Interestingly, words alone (theory three) never receives prominent attention from participants, regardless of the nature of the text. Music alone (theory one), even though the most frequent choice in at least two instances ("My Heart's Friend," 50%; "Marianne," 40.58%) never receives a true majority of total responses.

There is reason to suspect, then, that the music-text relationship in the choral setting, particularly as perceived by choristers, is not a universal, one size fits all proposition. This variable merits further investigation by a research design that incorporates choral compositions representing a greater array of styles, both musically and textually. Using the same composition for an array of ensembles might also be warranted.

If, as it appears in the context of this particular study, music does not consistently overpower text in choral singing, for either choristers or auditors, then philosophies of music and choral music education predicated upon music alone, that is, music narrowly defined, may merit reconsideration. Absolute expressionists, of course, might well argue that participants in this study did not sing or listen with aesthetic sensibilities sufficient for the expressive form of these musical works to dominate, or perhaps even that these works were not worthy of study or performance. Such arguments, however, raise questions of their own about the viability of music education as aesthetic education in typical choral contexts.

While data do not seem to suggest differences between the way participants respond to a cappella choral music and choral music with piano accompaniment, it may be conjectured that the pipe organ accompaniment affected focus among those audience members hearing "How Excellent Thy Name." Members (77.77%) of the women's chorus acknowledge the role of a strong, majestic text in their selection of theories two, three, and four (each of which includes a textual ingredient) with this composition. By contrast, a tied majority of the audience sample selected theory one (music alone) as most descriptive of its focus. Three audience respondents wrote that they particularly liked the organ, and the audience sample overall was evenly split between focus upon the music (theory one) and an oscillating focus equally back and forth

between words and music (theory four), rather than an equal focus upon words and music at the same time (theory two).

The guest conductor-arranger's explication of the sociological context of "Keep Your Lamps" appears to be the major factor in the honours choir's selection of theory five (focus on the overall meaning). Whether this treatment actually transformed or merely reinforced the choir's perception of music-text relationship in this composition could not be determined from this study. On the basis of observing choir and conductor during this exploration, one suspects that this instance is an example of how music-text relationship can be taught and learned, or at least facilitated, in terms of a whole which goes beyond music or text ingredients to a level of almost completely integrated meaning. Future research may well use an experimental design to test such a factor.

The data indicate that choruses and audiences who hear them describe music-text focus differently. Yet truly random and larger audience samples are needed before such a conclusion can be stated with any confidence.

Participants' written responses, especially those of Honours Choir singers, suggest that the neither/nor exclusion of words and music in item five is likely inappropriately phrased, given the unintended way in which it might imply to some that overall meaning is totally divorced from words and music. Such observation raises the question of the limits of such condensed constructs to articulate fully the actual focus and perceptions of respondents. Such constructs may be assuming, moreover, that certain basic terms, such as "music," or even "words," carry universal definition. By words, for example, do we mean phonemes, phrases, sentences, meanings, metaphors, what? These are concerns that need to be addressed further. Including a composition in a foreign language might also be an instructive tack.

As a whole, results of this study suggest that perhaps some combination or integration of media may prove the most useful construct for investigating and interpreting texted choral music. It appears that relationship may be a key concept when investigating music and text in choral music. This preliminary indication is largely in accord with theories predicting the facilitative integration of text and music, suggesting perhaps that music versus text may be a misplaced debate both in philosophical and neuropsychological contexts.

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